

**Toxic Steering Group Meeting Minutes
February 26, 2008**

Attendees:

Shannon Briggs, DEQ/WB	Mary Lee Hultin, DEQ/AQD
Christina Rose Bush, DCH	Deb Mackenzie-Taylor, DEQ/WHMD
Dennis Bush, DEQ/WB (chair)	Amy Perbeck, MDEQ/WB
Gary Butterfield, DEQ/AQD	Lisa Quiggle, DCH
Mike Depa, DEQ/AQD	Divinia Ries, DEQ/RRD
Linda Dykema, DCH	Maggie Sadoff, DEQ/AQD
Christine Flaga, DEQ/RRD	Catherine Simon, DEQ/AQD
Kay Fritz, DEQ/WHMD	Jim Sygo, DEQ, Deputy Director
Kory Groetsch, DCH	Emily Weingartz, Librarian
Eric Wildfang, DEQ/RRD	

1. Introductions - The MDCH has a new toxicologist named Lisa Quiggle.
2. News from the front office - Deputy Director, Jim Sygo, provided an update on the budget. He also mentioned that he met with the director of the National Academy of Sciences (NAS). The NAS director mentioned that his group is willing to assist with state issues. Jim mentioned some possible issues that the NAS may be able to help us with. Recent NAS documents were handed out at the meeting. Jim also stressed the importance of finalizing the PBDE report. Jim is going to determine the MDA contact person for toxicology issues now that the MDA decided not to fill Brian Hughes' position.
3. Annual TSG Report - Dennis Bush mentioned that the 2007 TSG report was due on February 1, 2008. To facilitate the completion of the report, Dennis will send a note to TSG members letting them know what parts of the report they need to update.
4. PFOS/PFOA - As a follow-up to our last TSG meeting, Chris Flaga determined that PFOS and PFOA are not routinely measured at Part 201 sites and our laboratory does not have the capability to monitor for these compounds. Dennis Bush said that his unit would take a look at the various sources of these compounds to get a better idea where they might be found.
5. Conference attendance - The group discussed attendance at three conferences pertinent to the work done by the toxicologists. The PBPK meeting was not attended by any staff. However, Deborah Mackenzie-Taylor plans to attend the Toxicology and Risk Assessment Conference and Divinia Ries plans on attending the Society of Toxicology conference.
6. EarthDay ideas - Christina Bush gave a brief overview of the plans that are being made regarding the toxicology exhibits at EarthDay. She mentioned that we are going to have the same fishing hole and daphnid exhibits that we had last year, with the thought of expanding the displays to show the whole pollution/exposure cycle. Christina also requested input from the group as to whether one of the exhibits could be an XRF machine that could analyze objects for lead. Her idea was to have DEQ staff bring in items from home and have them analyzed for lead. However, since the XRF uses radiation to perform the testing, the group decided that this might not be the best type of display for children attending EarthDay. It was suggested that DEQ employees could have objects tested either prior to EarthDay, so that the results could be shown to children during EarthDay, or at a separate event, not involving Earth Day.

7. Alliance for Risk Assessment - Mr. Oliver Kroner of Toxicology Excellence for Risk Assessment was interested in knowing the risk assessment issues that toxicologists within Michigan are dealing with. Dennis Bush solicited ideas from TSG members. Ideas were discussed at the meeting and Dennis agreed to send the results of our discussion to Mr. Kroner.
8. Access to journals online (and elsewhere) - Emily Weingartz discussed finding online journal articles within DEQ. Many articles can be downloaded without any subscription, but several factors including funding source, date of publication, and publisher influence availability.
9. Latest on Dioxin - Deborah Mackenzie-Taylor reported that, in late 2007, the EPA Superfund program had been negotiating with Dow Chemical for an investigation of dioxin contamination in the Tittabawassee River, Saginaw River, and the Saginaw Bay including the adjacent flood plains. The proposed investigation would have been conducted under CERCLA authority, but EPA determined that the best approach is for the state to maintain the lead for the investigation under the RCRA/Part 111 operating license issued to Dow in 2003. Recent dioxin investigation activities are described below:

Midland - Approximately 140 soil stations were sampled in the city of Midland from wind rose array transects. The sample results are blinded as to the location within a rectangular box drawn on the city map. The maps containing the data are being held by the city of Midland's attorney and can only be viewed by regulatory staff in their offices. This arrangement was insisted upon by the city of Midland as a condition for sampling within the city. Dow has submitted proposed soil direct contact criteria that range from 90 parts per trillion (ppt) to 250,000 ppt TEQ of dioxins and furans. The criteria proposal was to have been submitted to an independent science advisory panel organized by TERA for review, but the review is being held in abeyance as other approaches are considered. The MDEQ is evaluating whether there are sufficient soil data to adequately characterize the contaminated area.

Tittabawassee River and floodplain - Investigation is ongoing. More than 8,000 soil and sediment samples were collected in the 2006 and 2007 sampling seasons. Additional investigations will continue in 2008. Concentrations detected range to 140,000 ppt TEQ.

Saginaw River, Saginaw Bay, and the adjacent floodplains - Preliminary sampling found an in-channel concentration of 1,600,000 ppt TEQ. Dow was required to immediately begin a removal action under a CERCLA removal order. Dow submitted a Scope of Work that was approved by the DEQ with modifications. Dow has filed a court law suit challenging this action.

Dioxin health effects - A newly published study found male reproductive effects in the human population exposed to dioxin in the 1976 chlorophenol plant explosion in Seveso, Italy. Adult men who were exposed before puberty showed permanently decreased sperm concentration and motility, while these parameters were increased in males exposed during puberty. Men who were adults when exposed showed no effects on sperm. Males who were exposed either before or during puberty also showed permanent effects on hormonal levels (estradiol and FSH). This study confirms developmental male reproductive effects in humans that have been seen in several animal studies. New laboratory studies also show the importance of lactational exposure for these male reproductive effects.

10. Subcommittee updates:

PBDEs - Chris Flaga provided an update on the progress of the PBDE subcommittee. She mentioned that the subgroup has drafted a response to the comments provided by the Bromine Science and Environmental Forum and plan to meet on February 29, 2008, to discuss the draft response. She also mentioned that the subcommittee has been busy responding to comments on HB 4465 provided by a Mr. Neumann who represents the National Association of State Fire Marshals. Significant time was also spent drafting and discussing the department's analysis of HB 4465. Also, Chris Flaga and Catherine Simon attended a presentation to the Great Lakes and Environment House Committee on February 12 by Dr. Lauren Heine who is a senior science advisor to the Clean Production Action.

Children's Health - The children's health group submitted comments to EPA regarding the Framework for Determining a Mutagenic Mode of Action.

Mn PSIC - The Mn PSIC Subcommittee has met twice since the last TSG meeting. The activities that are close to completion include:

- 1.) Summary of relevant Mn studies/reports in the Detroit area
- 2.) Mn PSIC comparison between states
- 3.) Evaluation of air modeling programs for PSIC Q/C factor

The subgroup is presently considering:

- 1.) Adjustment factor for the Particulate Emission Factor
- 2.) Particle size